DOCUMENT RESUME

ED 099 034 JC 740 475

AUTHOR	Gold, Ben K.
TITLE	A Comparative Analysis of Performance on the 1973-1974 ARRT X-Ray Technology Examinations. Research Study No. 74-9.
INSTITUTION	Los Angeles City Coll., Calif.
PUB DATE	Nov 74
NOTE	10p.
EDRS PRICE	MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS	*Community Colleges; *Comparative Analysis; Higher Education; Post Secondary Education; *Radiologic Technologists; Statistical Data; Tables (Data); Technical Education; *Test Results; Universities
IDENTIFIERS	American Registry of Radiologic Technologists; California; *Los Angeles City College

ABSTRACT

Some comparative statistics are provided on the performance of Los Angeles City College (LACC) students on the 1973-74 examinations in X-Ray Technology given by the American Registry of Radiologic Technologists (ARRT). The data from the ARRT report are presented in five tables, as follows: (1) an overall summary; (2) California community colleges; (3) California institutions other than community colleges; (4) performance by state, all institutions; and (5) performance by state, community colleges only. The study data showed that: (1) the 29 LACC candidates were the 11th largest group of all 1,030 institutions in the U.S., 7th largest of the 99 U.S. community colleges, and 2nd largest of the 20 California community colleges; (2) 18 percent of the candidates are from community colleges, and in California, over half of the candidates are from community colleges; (3) community colleges averaged 14 candidates per institution (18 in California); other institutions averaged 7 candidates; (4) when compared with other California community colleges, LACC performance was slightly better in failure rate (7 percent compared with 9 percent) and slightly poorer in average scaled score (83.0 compared with 84.0); (5) California community college candidates performed better than their counterparts nationwide in both failure rate and average scaled score; and (6) when compared with other California institutions, California community colleges' performance was about equivalent; failure rate was slightly poorer; and average scaled score was slightly better. (DB)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

ED 099034

LOS ANGELES CITY COLLEGE

"A COMPARATIVE ANALYSIS OF PERFORMANCE ON THE 1973-1974 ARRT X-RAY TECHNOLOGY EXAMINATIONS"

Research Study #74-9

Ben K. Gold
Research Office
November, 1974

JC 740 475

BEST COPY AVAILABLE

"A COMPARATIVE ANALYSIS OF PERFORMANCE ON THE 1973-1974 ARRT X-RAY TECHNOLOGY EXAMINATIONS"

PURPOSE OF THE STUDY

This study was undertaken at the request of Miss Gertrude Pearson, Chairman of the Los Angeles City College Radiologic Technology Department, to provide some comparative statistics on the performance of LACC students on the 1973-1974 examinations in X-Ray Technology, given by the American Registry of Radiologic Technologists (ARRT).

PROCEDURE OF THE STUDY

Miss Pearson furnished to the Research Office a 24 page booklet listing by state and by institution a summary of performance of candidates taking either the November, 1973 or May, 1974 ARRT examination for the first time. For each of the 1,030 institutions the report indicated the number tested, number failed, percent failed and average scaled score for the candidates from that institution. These listings provide the data for the tables of the next section.

FINDINGS

The data from the ARRT report are presented in five tables, as follows: (1) an overall summary; (2) California Community Colleges; (3) California institutions other than Community Colleges; (4) performance by State, all institutions; and (5) performance by State, Community Colleges only. Average scaled score is a weighted average for the institutions indicated, and has been figured for all Community Colleges and for other institutions within California. Totals differ slightly (less than one half of one percent) from those available in the report.

BEST COPY AVAILABLE

TABLE 1 - Summary of Performance on ARRT X-Ray Technology Examinations (November, 1973 and May, 1974)

	No. of Institutions	No. Tested	No. Failed	% Failed	Average Scaled Score	Average No. tested per Institution
Total United States	1030	8009	1086	13.6%	N/A	7.8
Community Colleges	99	1420	213	15.0%	82.0	14.3
Hospitals and Universities	931	6589	873	13.2%	N/A	7.1
Total California	59	641	59	9.2%	84.0	10.9
Community Colleges	20	366	33	9.0%	84.0	18.3
Hospitals and Universities	39	275	26	9.5%	83.9	7.1
Los Angeles City College	1	29	2	6.9%	83.0	29.0

BEST COPY AVAILABLE

TABLE 2 - Performance on ARRT X-Ray Technology Examinations (November, 1973 and May, 1974): California Community Colleges

College	No. Tested	No. Failed	% Failed	Average Standard Score
1. Fullerton Junior College	32	5	16	83
2. Los Angeles City College	29	2	7	83
3. Merritt College	29	0	0	86
4. San Francisco City College	28	3	11	83
5. Fresno City College	24	3	13	83
6. Long Beach City College	24	2	8	82
7. Chaffey College	23	4	17	84
8. Orange Coast College	23	2	9	84
9. San Diego Mesa College	21	1	5	83
10. Yuba College	17	4	24	82
11. Santa Barbara City College	16	0	0	85
12. Mt. San Antonio College	15	0	0	89
13. Foothill College	14	0	0	86
14. Bakersfield College	13	1	7	86
15. Santa Rosa Junior College	13	3	23	82
16. Merced College	12	3	25	79
17. Canada College	11	0	0	88
18. El Camino College	11	0	0	88
19. Cabrillo College	6	0	0	87
20. Antelope Valley College	5	0	0	86
TOTAL	366	33	9.0%	84.0

BEST COPY AVAILABLE

TABLE 3 - Performance on ARRT X-Ray Technology Examinations (November 1973 & May 1974): California Hospitals, Universities, and Private Colleges

	No. Tested	No. Failed	% Failed	Average Standard Score
1. Loma Linda University	20	1	5	83
2. L. A. VA Hospital, Wadsworth Hospital	16	1	6	84
3. Pomona Valley Community Hospital	16	0	0	88
4. UCLA Medical Center	16	4	25	81
5. San Bernardino County General Hospital	14	6	43	77
6. L. A. County General Hospital	12	1	8	82
7. Stanford University Hospital	12	0	0	85
8. U. S. Naval Hospital San Diego	12	3	25	79
9. Children's Hospital LA	10	1	10	87
10. Santa Monica Hospital	10	1	10	82
11. San Joaquin General Hospital, Stockton	9	0	0	91
12. University of California San Francisco	8	0	0	89
13. Daniel Freeman Memorial Hospital, Inglewood	7	0	0	84
14. Mercy Hospital Sacramento	7	1	14	85
15. St. Francis Hospital Lynwood	7	0	0	85
16. Cedars of Lebanon Los Angeles	6	1	17	86
17. Huntington Memorial Hospital, Pasadena	6	0	0	90
18. O'Connor Hospital San Jose	6	0	0	87
19. St. Joseph Hospital Burbank	6	0	0	88
20. Santa Clara Valley Medical Center San Jose	6	0	0	86
21. Highland General Hospital Oakland	5	1	20	80
22. Peninsula Hospital Medical Center Burlingame	5	0	0	88
23. St. John's Hospital Oxnard	5	1	20	78
24. San Jose Hospital & Medical Center	5	0	0	85

(continued on next page)

BEST COPY AVAILABLE

TABLE 3 (continued)

	No. Tested	No. Failed	% Failed	Average Standard Score
25. Sutter Community Hospital Sacramento	5	0	0	91
26. U. S. Naval Hospital Oakland	5	2	40	74
27. University Hospital San Diego	5	0	0	88
28. California Hospital Medical Center, LA	4	0	0	84
29. Contra Costa County Hospital, Martinez	4	0	0	81
30. Memorial Hospital Exeter	4	0	0	83
31. Riverside Community Hospital	4	0	0	83
32. St. John's Hospital Santa Monica	4	0	0	90
33. Santa Barbara Cottage Hospital	4	0	0	87
34. South Central Multipurpose Health Serv. Center LA	3	0	0	88
35. General Hospital Eureka	2	0	0	83
36. Hawthorne Community College Hawthorne	2	1	1	50
37. Serra Memorial Hosp. Sun Valley	1	0	0	75
38. South Coast Community Hospital S. Laguna	1	0	0	90
39. U.S. Naval Hospital Camp Pendleton	1	1	100	70
TOTAL	275	26	9.5%	83.9

TABLE 4 - Performance on ARRT X-Ray Technology Examinations (November 1973 & May 1974): by State, All Institutions

State	No. of Insts.	Rank	No. Tested	Rank	No. Failed	% Failed	Aver. No. Tested per Institution
1. Alabama	13	26	111	26	8	7.2	8.5
2. Arizona	8	32	43	36	5	11.6	5.4
3. Arkansas	6	39	57	33	2	3.5	9.5
4. California	59	4	641	1	59	9.2	10.9
5. Colorado	9	29	118	24	15	12.7	13.1
6. Connecticutt	20	19	213	11	29	13.6	10.6
7. Deleward	2	47	16	48	2	12.5	8.0
8. District of Columbia	5	44	26	42	11	42.3	5.2
9. Florida	27	12	213	12	25	11.7	7.9
10. Georgia	26	13	180	16	29	16.1	6.9
11. Hawaii	2	48	11	49	2	18.2	5.5
12. Idaho	6	40	20	45	1	5.0	3.3
13. Illinois	62	3	450	6	88	19.6	7.3
14. Indiana	18	22	191	15	13	6.8	10.6
15. Iowa	22	16	123	22	13	10.6	5.6
16. Kansas	17	24	91	27	5	5.5	5.4
17. Kentucky	17	25	112	25	13	11.6	6.6
18. Louisiana	19	20	142	21	22	15.5	7.5
19. Maine	9	30	74	29	3	4.1	8.2
20. Maryland	21	18	208	13	40	19.2	9.9
21. Massachusetts	41	7	310	8	18	5.8	7.6
22. Michigan	37	8	372	7	54	14.5	10.0
23. Minnesota	30	10	156	20	14	9.0	5.2
24. Mississippi	8	33	43	37	8	18.6	5.4
25. Missouri	22	17	196	14	26	13.3	8.9
26. Montana	6	41	28	41	2	7.1	4.7
27. Nebraska	8	34	44	35	5	11.4	5.5
28. Nevada	3	46	25	43	2	8.0	8.3
29. New Hampshire	8	35	33	39	4	12.1	4.1
30. New Jersey	37	9	302	9	68	22.5	8.2
31. New Mexico	6	42	19	46	5	26.3	3.2
32. New York	56	5	487	5	70	14.4	8.7

(continued on next page)

BEST COPY AVAILABLE

TABLE 4 (continued)

State	No. of Insts.	Rank	No. Tested	Rank	No. Failed	% Failed	Aver. No. Tested per Institution
33. North Carolina	26	14	179	17	32	17.9	6.9
34. North Dakota	8	36	32	40	5	15.6	4.0
35. Ohio	76	2	511	4	71	13.9	6.7
36. Oklahoma	10	28	62	32	10	16.1	6.2
37. Oregan	4	45	69	30	3	4.3	17.2
38. Pennsylvania	87	1	590	2	105	17.8	6.8
39. Rhode Island	9	31	42	38	5	11.9	4.7
40. South Carolina	11	27	78	28	10	12.8	7.1
41. South Dakota	8	37	24	44	5	20.8	3.0
42. Tennesee	18	23	159	18	17	10.7	8.8
43. Texas	52	6	563	3	99	17.6	10.8
44. Utah	6	43	51	34	3	5.9	8.5
45. Vermont	2	49	17	47	0	0.0	8.5
46. Virginia	24	15	157	19	21	13.4	6.5
47. Washington	8	38	63	31	2	3.2	7.9
48. West Virginia	19	21	123	23	28	22.8	6.5
49. Wisconsin	30	11	226	10	6	2.7	7.5
50. Wyoming	2	50	8	50	3	37.5	4.0
TOTALS	1030		8009		1086	13.6	7.8

BEST COPY AVAILABLE

TABLE 5 - Performance on AERT X-Ray Technology Examinations (November 1973 & May 1974): By State, Community Colleges Only

State	No. of Colleges	Rank	No. Tested	Rank	No. Failed	% Failed	Aver. Scaled Score	Aver. No. Tested per College
1. Alabama	2	11	24	15	3	12.5	81.9	12.0
2. Arizona	2	12	14	17	3	21.4	78.9	7.0
3. California	20	1	366	1	33	9.0	84.0	18.3
4. Colorado	1	20	56	7	10	17.9	81.0	56.0
5. Connecticut	4	6	63	6	10	15.9	82.4	15.8
6. Florida	2	13	31	13	3	9.7	84.3	15.5
7. Hawaii	1	21	8	20	2	25.0	80.0	8.0
8. Illinois	12	2	134	4	30	22.4	81.4	11.2
9. Kansas	2	14	12	18	1	8.3	81.2	6.0
10. Maine	1	22	8	21	0	0.0	85.0	8.0
11. Maryland	3	8	39	10	5	12.8	83.6	13.0
12. Massachusetts	9	3	187	2	19	10.2	81.6	20.8
13. Mississippi	1	23	4	27	0	0.0	78.0	4.0
14. Missouri	2	15	27	14	3	11.1	74.0	13.5
15. Nevada	1	24	7	23	0	0.0	83.0	7.0
16. New Jersey	3	9	56	8	24	42.9	76.5	18.7
17. New York	9	4	142	3	35	24.6	80.2	15.8
18. North Carolina	1	25	8	22	3	37.5	76.0	8.0
19. Ohio	3	10	38	11	5	13.2	81.3	12.7
20. Oklahoma	1	26	3	28	1	33.3	77.0	3.0
21. Oregon	2	16	64	5	2	3.1	85.6	32.0
22. South Carolina	2	17	15	16	2	13.3	86.5	7.5
23. South Dakota	2	18	7	24	3	42.9	79.1	3.5
24. Tennessee	2	19	9	19	0	0.0	82.0	4.5
25. Texas	5	5	38	12	7	18.4	81.5	7.6
26. Washington	4	7	47	9	2	42.6	84.6	11.8
27. West Virginia	1	27	6	26	4	66.7	71.0	6.0
28. Wyoming	1	28	7	25	3	42.9	78.0	7.0
TOTALS	99		1420		213	15.0%	82.0	14.3

BEST COPY AVAILABLE

BEST COPY AVAILABLE

CONCLUSIONS

Following are some observations on the findings:

(1) The 29 candidates from L.A.C.C. represented the eleventh largest total of all of the 1,030 institutions in the U.S., the seventh largest total of the 99 U.S. Community Colleges, and the second largest total of 20 California Community Colleges.

(2) About 10% of U.S. institutions sending candidates are Community Colleges, but about 18% of the candidates are from Community Colleges. In California, about a third of the institutions are Community Colleges, but over half of the candidates are from Community Colleges.

(3) Community Colleges averaged 14 candidates per institution (18 in California); other institutions averaged 7 candidates per institution.

(4) When compared with other California Community Colleges, L.A.C.C. performance was slightly better in failure rate (7% compared with 9%) and slightly poorer in average scaled score (83.0 compared with 84.0). Differences are not statistically significant.

(5) California Community College candidates performed better than their counterparts nationwide in both failure rate (9% compared with 15%) and in average scaled score (84.0 compared with 82.0).

(6) When compared with other California institutions (almost all hospitals and/or medical centers), California Community Colleges' performance was about equivalent; failure rate was slightly poorer (9.5% to 9.0%), average scaled score was slightly better (84.0 to 83.9).

* * * * * * * * * * * * * *

UNIVERSITY OF CALIF.
LOS ANGELES

1974

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION